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PLASTIC INJECTION PROCESS FOR THE MANUFACTURE OF A LID FOR AN ELECTRIC CAPACITOR AND THE PRODUCT OF SUCH PROCESS

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ABSTRACT

An injection molding process for the manufacture of a lid for an electric capacitor. The process employs a dual injection machine having a first mold half initially positioned on a fixed mold plate and a second mold half initially positioned on a rotatable mold plate and comprises the steps of injecting through a first injection unit a rigid thermoplastic resin into the initially positioned first and second mold halves; opening the mold halves of the dual injection machine and rotating the rotatable plate so that the second mold half is positioned on the fixed mold plate and the first mold half is positioned on the rotatable mold plate; injecting through a second injection unit a flexible thermoplastic resin into the repositioned first and second mold halves; and opening the mold halves of the dual injection machine and expelling the lid for an electric capacitor. A lid for use in the manufacture of an electrical capacitor is also provided.

Deleted: This invention involves the process followed to manufacture a Plastic Lid formed by two different Thermoplastic resins injected in a Double Injection Machine, that serves as upper cover for the Case of a Capacitor, as packing to seal the case and as safety valve to exhaust gas in case of overheating.¶

This invention is related to a new and novelty design of a lid, which in turn, is manufactured through a novelty procedure currently not existing in the Capacitors Industry, and thus makes it different to those that already exist. This lid works as cover for the case of a capacitor, as packing for air-tight sealing of the case, as well as safety valve for exhaust of gas in case of overheating of the capacitor. The lid is formed by two different injection thermoplastic resins, one rigid (17) in the upper part and the other of rubber material (18) in the lower part, and the perimetric area of the lid (3). The upper part (17) is the lid itself of the capacitor casing, the lower part (18) serves as packing for the case; additionally, this part of the lid covers an orifice of the rigid part (17), forming a safety valve (16) for exhaust of gas. The perimetric contour (3) serves as packing of the case, the edge (7) of the rigid part (17) works as mechanical grip to avoid both materials from breaking lose.¶

The process used to manufacture the lid is through a double injection machine (4) that uses two molds at the same time and may inject two different resins through the same process.

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